- a buffer for buffering said first signal;

- a filter having a pass characteristic such that said first signal can pass comprising a first filter portion having a finite impulse response introducing zeros in the transfer function of said filter and a second filter portion having an infinite impulse response introducing poles in the transfer function of said filter;

- wherein said first filter portion is arranged in front of said replacing means with respect to said transmission path, and said second filter portion behind thereof.

2. {AMENDED} A receiver according to claim 1, characterized by receiving a second signal (A) over said transmission path simultaneously with said first signal (B), said first and said second signal having different frequency bands, and said pass characteristic of said filter being such that said second signal (A) cannot pass said filter.

3. {AMENDED} A receiver according to claim 1, characterized in that for a given data symbol, said second prefix is a part of said given data symbol.

4. {AMENDED} A receiver according to claim 1, characterized by

- said buffer comprising a first buffer portion and a second buffer portion;

- a switching means for switching said transmission path to said first and second buffer portions such that successively transmitted ones of said plurality of data symbols are alternately buffered in said first and second buffer portions.

5. {AMENDED} A receiver according to claim 1, characterized in that, said means for generating a second prefix generates said second prefix with a length corresponding to a parameter derived from a impulse response of said filter such that an interference of successive ones of said plurality of data symbols of said first signal (B) caused by transients of said filter is avoided.

6. {AMENDED} A receiver according to claim 1, characterized in that said transmission path is a telephone line and said second signal is a telephone service or an ISDN service.

7. {AMENDED} A modem including a receiver according to claim 1.

8. {AMENDED} A method for receiving a signal (B) on a receiving side of a transmission system, said signal comprising data symbols and a first prefix in front of each data symbol for avoiding an interference of successively transmitted data symbols, comprising the following steps:

- receiving said signal on the receiving side;
- buffering said received signal;
- generating a second prefix for each first prefix in front of each of said data symbols;
- replacing said first prefix by said second prefix, said second prefix having a length longer than that of said first prefix to be replaced;
- filtering said signal, wherein said first prefix has been replaced by said second prefix, by means of a filter having a pass characteristic such that said signal can pass, including firstly filtering said signal with a first filter portion having a finite impulse response (FIR) introducing zeros in the transfer function of said filter before replacing said first prefix and secondly filtering said signal (B) wherein said first prefixes have been replaced by said second prefixes by means of a second filter portion having an infinite impulse response (IIR) including poles in the transfer function of said filter.

9. {AMENDED} A method according to claim 8, characterized in that for a given data symbol, said second prefix is generated by using a part of said given data symbol.